

ABSTRACT OF THE DISCLOSURE

An image display apparatus disclosed includes:

a condensing optical system for changing illumination light from a light source to converging light;

a color separation optical system having a color separation optical member for reflecting a color light component in a specific wavelength range of the converging light and transmitting color light components in the other wavelength ranges;

a plurality of image display devices illuminated by a plurality of color light components separated by the color separation optical system, respectively,

a color combination optical system for combining image light components of a plurality of colors emanating from the plurality of image display devices; and

a projection optical system for projecting image light components combined by the color combination optical system on a surface on which projection is performed,

wherein an optical axis of light incident on the color separation optical member forms an angle smaller than 45 degrees with a normal to a light incident surface of the color separation optical member.

The image display apparatus also has an outer box for housing the condensing optical system, the color

separation optical system, the plurality of image display devices, the color combination optical system and the projection optical system, wherein a wall surface closest to the condensing optical system and the color separation optical member of wall surfaces substantially perpendicular to an optical axis direction of the projection optical system in the outer box extends along a portion, which is farthest from the projection optical system, of the outer periphery of converging light incident on the color separation optical member from the condensing optical system.

In addition, a direction of a portion, which is farthest from the projection optical system, of the outer periphery of converging light incident on the color separation optical member from the condensing optical system is substantially perpendicular to an optical axis direction of the projection optical system.

According to these inventions, the color separation optical system can be arranged with higher degree of freedom with respect to the image light combination/projection optical system, and the whole apparatus can be compact in size.